

U. S. GEOLOGICAL SURVEY
ANNUAL PEAK FLOW FREQUENCY ANALYSIS
Following Bulletin 17-B Guidelines
Program peakfq
(Version 4.0, December, 2000)

Station - 05335380 BASHAW BROOK NEAR SHELL LAKE, WI
2002 MAR 13 09:02:47

I N P U T D A T A S U M M A R Y

Number of peaks in record	=	35
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	35
Historic peaks in analysis	=	0
Years of historic record	=	0
Generalized skew	=	-0.289
Standard error of generalized skew	=	0.550
Skew option	=	WEIGHTED
Gage base discharge	=	0.0
User supplied high outlier threshold	=	--
User supplied low outlier criterion	=	--
Plotting position parameter	=	0.00

***** NOTICE -- Preliminary machine computations. *****
***** User responsible for assessment and interpretation. *****

WCF134I-NO SYSTEMATIC PEAKS WERE BELOW GAGE BASE.	0.0
WCF162I-SYSTEMATIC PEAKS EXCEEDED HIGH-OUTLIER CRITERION.	1 572.1
WCF195I-NO LOW OUTLIERS WERE DETECTED BELOW CRITERION.	17.5

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ANNUAL FREQUENCY CURVE PARAMETERS -- LOG-PEARSON TYPE III

	FLOOD BASE		LOGARITHMIC		
	EXCEEDANCE DISCHARGE	PROBABILITY	MEAN	STANDARD DEVIATION	SKEW
SYSTEMATIC RECORD	0.0	1.0000	1.9998	0.2883	0.416
BULL.17B ESTIMATE	0.0	1.0000	1.9998	0.2883	0.155

ANNUAL FREQUENCY CURVE -- DISCHARGES AT SELECTED EXCEEDANCE PROBABILITIES

ANNUAL EXCEEDANCE PROBABILITY	BULL.17B ESTIMATE	SYSTEMATIC RECORD	'EXPECTED PROBABILITY'	95-PCT CONFIDENCE LIMITS FOR BULL. 17B ESTIMATES	
				LOWER	UPPER
0.9950	19.9	23.4	17.8	12.7	27.4
0.9900	23.0	26.2	21.1	15.1	31.0
0.9500	34.6	36.5	33.1	24.7	44.2
0.9000	43.2	44.2	42.0	32.3	53.9
0.8000	56.9	56.6	56.1	44.5	69.4
0.5000	98.3	95.5	98.3	81.3	118.6
0.2000	173.8	171.7	176.5	142.6	221.7
0.1000	236.4	239.7	244.0	189.0	317.7
0.0400	330.8	349.4	350.7	254.4	474.9
0.0200	412.6	450.8	448.6	308.5	620.8
0.0100	504.8	571.5	564.9	367.1	793.8
0.0050	608.5	714.9	703.9	430.9	998.0
0.0020	765.4	945.6	930.5	524.1	1323.0
0.6667	74.1	(1.50-year flood)			
0.4292	110.5	(2.33-year flood)			

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I N P U T D A T A L I S T I N G

WATER YEAR	DISCHARGE	CODES	WATER YEAR	DISCHARGE	CODES
1959	50.0		1977	28.0	
1960	172.0		1978	74.0	
1961	89.0		1979	98.0	
1962	64.0		1980	98.0	
1963	77.0		1981	105.0	
1964	53.0		1982	48.0	
1965	600.0		1983	375.0	
1966	132.0		1984	230.0	
1967	273.0		1985	73.0	
1968	98.0		1986	225.0	
1969	115.0		1987	78.0	
1970	24.0		1988	70.0	
1971	130.0		1989	126.0	
1972	44.0		1990	175.0	
1973	160.0		1991	95.0	
1974	92.0		1992	105.0	
1975	68.0		1993	82.0	
1976	105.0				

Explanation of peak discharge qualification codes

PEAKFQ	WATSTORE	
CODE	CODE	DEFINITION
D	3	Dam failure, non-recurrent flow anomaly
G	8	Discharge greater than stated value
X	3+8	Both of the above
L	4	Discharge less than stated value
K	6 OR C	Known effect of regulation or urbanization
H	7	Historic peak

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EMPIRICAL FREQUENCY CURVES -- WEIBULL PLOTTING POSITIONS

WATER YEAR	RANKED DISCHARGE	SYSTEMATIC RECORD	BULL.17B ESTIMATE
1965	600.0	0.0278	0.0278
1983	375.0	0.0556	0.0556
1967	273.0	0.0833	0.0833
1984	230.0	0.1111	0.1111
1986	225.0	0.1389	0.1389
1990	175.0	0.1667	0.1667
1960	172.0	0.1944	0.1944
1973	160.0	0.2222	0.2222
1966	132.0	0.2500	0.2500
1971	130.0	0.2778	0.2778
1989	126.0	0.3056	0.3056
1969	115.0	0.3333	0.3333
1976	105.0	0.3611	0.3611
1981	105.0	0.3889	0.3889
1992	105.0	0.4167	0.4167
1968	98.0	0.4444	0.4444
1979	98.0	0.4722	0.4722
1980	98.0	0.5000	0.5000
1991	95.0	0.5278	0.5278
1974	92.0	0.5556	0.5556
1961	89.0	0.5833	0.5833
1993	82.0	0.6111	0.6111
1987	78.0	0.6389	0.6389
1963	77.0	0.6667	0.6667
1978	74.0	0.6944	0.6944
1985	73.0	0.7222	0.7222
1988	70.0	0.7500	0.7500
1975	68.0	0.7778	0.7778
1962	64.0	0.8056	0.8056
1964	53.0	0.8333	0.8333
1959	50.0	0.8611	0.8611
1982	48.0	0.8889	0.8889
1972	44.0	0.9167	0.9167
1977	28.0	0.9444	0.9444
1970	24.0	0.9722	0.9722

